## **ABSTRACT**

The present invention is of system, device, and method for detecting and localizing obstruction in a blood vessel. More particularly, the present invention is of a balloon catheter having an expandable balloon which comprises a plurality of strain gauges operable to report relative degrees of expansion of local portions of a wall of the expandable balloon. Incomplete expansion of a local portion of the balloon, under common pressure within the balloon, indicates presence of an obstruction, such as a region of plaque, within the blood vessel.